



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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COMMISSIONER

Center for Cooperative  
Aquaculture Research  
Hancock County  
Franklin, Maine  
A-924-71-C-M

Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #2

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

The Center for Cooperative Aquaculture Research (CCAR) of Franklin, Maine was issued Air Emission License A-924-71-A-N permitting the operation of emission sources associated with their Aquaculture Research facility on October 27, 2005. This License was amended on February 3, 2007, to add a third boiler and to include the use of ASTM D396 certified #2 fuel oil.

Recent inspections revealed that the heat inputs for Boilers #1 and #2 were incorrectly reported in the original License Application. This revision shall correct these heat inputs.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Fuel Burning Equipment**

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type</u>	<u>Stack #</u>
Boiler #1	<b>1.80</b>	<b>13.0</b>	#2 Fuel Oil	1
Boiler #2	<b>1.80</b>	<b>13.0</b>	#2 Fuel Oil	1
Boiler #3	1.80	13.0	#2 Fuel Oil	1

Note – new information is in **Bold**

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769-2094  
(207) 764-0477 FAX: (207) 760-3143

C. Application Classification

Due to a typographical error in License A-924-71-B-M, the SO<sub>2</sub> annual emissions were reported as 7.89 tons/year when the correct value should have been 10.59 tons/year. With this error taken into account, this amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

## II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1, #2 and #3

Boiler #1, #2 and #3 each have a rated maximum capacity of 1.8 MMBtu/hr, and were installed in 2005. They are therefore **not** subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boilers #1, #2, and #3 is the following:

1. The SO<sub>2</sub> emission limits are based on the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
2. The PM limits are derived from the BACT emission factor of 0.08 lb PM/MMBtu. The PM<sub>10</sub> limits are derived from the PM limits.
3. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 9/98.
4. Visible emissions from the boilers shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period.

C. Annual Emissions

1. Boilers #1, #2, and #3 shall be limited to firing #2 fuel oil which meets the criteria in ASTM D396. Emissions shall be based on continuous operation.
2. Back-up generators #1 and #2 shall each be limited to 500 hours of operation on a 12 month rolling total. Back-up generators #1 and #2 shall fire only #2 fuel oil which meets the criteria in ASTM D396.
3. Back-up generator #3 shall be limited to 500 hours of operation on a 12 month rolling total. Back-up generator #3 shall fire only diesel fuel with a sulfur content not to exceed 0.05%.
4. CCAR shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Licensed Annual Emission for the Facility**

**Tons/year**

(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers #1, #2, and #3	<b>1.91</b>	<b>1.91</b>	<b>12.04</b>	<b>3.42</b>	<b>0.85</b>	<b>0.09</b>
Back-up Generator #1	0.07	0.07	0.19	1.62	0.92	0.32
Back-up Generator #2	0.07	0.07	0.19	1.62	0.92	0.32
Back-up Generator #3	0.24	0.24	0.10	4.67	1.08	0.17
<b>Total</b>	<b>2.29</b>	<b>2.29</b>	<b>12.52</b>	<b>11.33</b>	<b>3.77</b>	<b>0.90</b>

**III.AMBIENT AIR QUALITY ANALYSIS**

According to 06-096 CMR 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

**ORDER**

The Department hereby grants Air Emission License A-924-71-C-M subject to the conditions in Air Emission Licenses A-924-71-A-N, and A-924-71-B-M, and the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### SPECIFIC CONDITIONS

The following conditions shall replace Specific Condition 16 B in Air Emission License A-924-71-B-M.

(16) **Boilers #1, #2 and #3**

- B. Emissions shall each not exceed the following for boilers #1, #2, and #3 [06-096 CMR 115, 06-096 CMR 103, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #1, #2, and #3 (each)	0.14	0.14	0.91	0.26	0.06	0.01

DONE AND DATED IN AUGUSTA, MAINE THIS 15<sup>th</sup> DAY OF October 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Little  
DAVID P. LITTLE, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-924-71-A-N.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/27/2008

Date of application acceptance: 7/9/2008

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Jonathan Voisine, Bureau of Air Quality.

